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ABSTRACT

This report provides information about occupations that have median earnings (as of 1996) for full-time workers in the Great Lakes states of $30,000 a year or more. Data were gathered from the Current Population Survey of the Bureau of Labor Statistics. The data analysis showed that more than half of the good-paying occupation do not require a four-year degree. The common characteristic of the 47 good-paying occupations that do not require a four-year degree is the need for training beyond high school. These occupations require advanced skills learned on the job, in apprenticeship programs, or at community colleges or technical schools. A new feature of this year's report is research on the fastest growing good-paying occupations; 30 occupations have employment growth of at least 15,000 workers and 20 percent growth from 1992-1997. Twelve of these occupations require a four-year degree, 18 do not. Another new feature of this year's report is research on the relationship between employment earnings and education attainment. Although those with the highest education attainment on average earn the most, a four-year degree is not required to have employment earnings of $30,000 a year or more. Tables report employment earnings by occupation, by educational attainment, and by age for full-time, year-round workers. (KC)

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ED 419 139

GOOD-PAYING OCCUPATIONS: A STUDY OF OCCUPATIONAL WAGES IN THE GREAT LAKES STATES

Updated and Expanded

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OVERVIEW

This report is designed to answer two questions:

- Are there good paying occupations that do not require a four-year degree in today's economy?
- If so, are these opportunities available to younger workers?

The research grows out of the work of Michigan Future, Inc. MFI is a non-profit, citizens organization focused on providing the citizens of Michigan with quality information about the rapidly changing economy.

In its work with citizens across the state, MFI has found that most Michiganians believe that the only reliable path to good-paying work is by obtaining a four-year college degree or more. This belief, however, contradicts reports from employers in almost every industry that they cannot fill good-paying jobs that do not require a bachelors degree.

In particular, people strongly believe that good-paying career options are shrinking for younger workers—largely limited to doctor, lawyer and engineer. The belief is that other good-paying jobs were available to boomers and their parents, but not their children and grandchildren.

To find out what the facts are MFI asked Don Grimes of the Institute of Labor and Industrial Relations of the University of Michigan to research occupational wages in the Great Lakes States. *For a copy of the full report, please contact MFI at (734) 769-6391 or mfi@autobody.org.*

Findings

In summary, the answer to both questions is yes. There are a wide variety of good paying occupations that do not require a four-year degree. These opportunities are available to younger workers.

This is particularly true for those with an occupational associates degree—where employment earnings are higher than for those with an academic associates degree or some college, but no degree. The value of the occupational associates degree is most pronounced for younger workers.

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I METHODOLOGY

The data in this report are from the March, 1992 and March, 1997 Current Population Survey (CPS). The CPS is collected monthly by the Census Bureau for the Bureau of Labor Statistics in order to determine the unemployment rate and other labor force statistics. In March of each year the Census Bureau collects some supplemental information on earnings and income during the previous year. This data forms the basis for our analysis.

The CPS is based upon a national sample of about 55,000 households. Michigan Future would prefer information for Michigan alone, but the sample (about 2,000 households) would have been too small to provide detailed occupational employment information. Consequently we collected information on all of the Great Lakes states (Illinois, Indiana, Ohio, Michigan, and Wisconsin). Given their very similar economic structure—a relatively large share of durable and especially motor vehicle manufacturing—we felt that the information collected from all of these states taken together would provide a reliable picture of the labor markets in any one of them. We believe that the information contained in this report, while statistically valid only for the Great Lakes area as a whole, presents a reliable picture of the labor market in Michigan.

Data are collected in the CPS on about 500 individual occupational categories. We narrowed this list to 183 occupations where the sample size was large enough to be reliable. With respect to current year measures (like unemployment rate) individuals are assigned an occupation based upon their current job, or if unemployed upon their previous job. Unemployed individuals who have never held a job are not included in the occupational unemployment rate statistics. Consequently the aggregate unemployment rate for all occupations (the experienced unemployment rate) is slightly less (about 0.5 percent points) than the aggregate unemployment rate reported in the press.

With respect to measures of prior year activity (like earnings) individuals are assigned an occupation based upon their longest job in 1996. Consequently individuals who did not work during 1996 are excluded from the earnings analysis. Many people worked only part-time during 1996 or were employed full-time for only part of the year. Earnings information on these individuals could be used to paint a valuable picture of economic distress in 1996. This study, however, wanted to compare earnings across different occupations and needed to use a similar employment base for all occupations. Consequently our measures of earnings by occupation are based upon individuals who worked full-time (at least 35 hours a week) for the full-year (at least 50 weeks of employment). Also, the earnings measure includes information from all jobs not just the one which determined the individuals occupation.

The median earnings for all year-round full-time workers in the Great Lakes states in 1996 was slightly less than $30,000. In categorizing occupations we arbitrarily chose to define an occupation as good-paying if the median earnings for that occupation was at or above the median for all occupations ($30,000). These occupations are shown in Tables I and II.

We were interested in the educational necessary to obtain theses good-paying jobs. The data from the CPS includes educational attainment for each individual. So we were able to calculate the percent of workers in each occupation who had a four-year degree or more. We arbitrarily define an occupation as requiring a four-year degree if 40% or more of those in an occupation have a four-year degree.

Second, we were interested in which occupations were growing. We compared employment levels—for all workers, not just full-time workers—in each occupation in March, 1992 and March, 1997, once again using data from the Current Population Survey for both years. We arbitrarily chose to define fast growing as an occupation where employment grew by 15,000 or more over the 5 year period and by 20% or more.

These growth statistics are net change in employment. We also looked at average age of workers in each occupation in hopes of determining which occupations have or will soon have the most retirements. Job seekers, of course, care about openings, not net new jobs. But we didn't find the average age statistics helpful in this analysis. Average age is included in Appendix B data.

Finally in Appendix A we reprint last year's analysis of the availability to younger workers of good-paying occupations that do not require a bachelors degree. We separated our sample of 1995 year-round, full-time workers into three age cohorts: those aged 20-34 in March 1996 (roughly generation X), those aged 35-49 (the baby-boomer generation), and those aged 50-64 (the depression and war generation). All individuals within each age cohort are then distributed across major occupational categories. If jobs in the good-paying occupations were not available to young people then the generation X workers should have a much lower share of employment in good-paying occupations than older cohorts.

II GOOD-PAYING OCCUPATIONS

This report updates and expands work on occupational wages in the Great Lakes States from a year ago. We have updated for 1996 the list of occupations that have median earnings for year round full-time workers of $30,000 a year or more—our definition of good paying.

* Eighty-eight of the 183 occupations we studied met our criteria as good-paying occupations—41 that require a four-year degree, 47 that do not.

* In 1996 there were 5.2 million workers in the Great Lakes states that held year round, full-time jobs in the 41 occupations that require a four-year degree. In the 47 good-paying occupations that do not require a four-year degree, there were 3.7 million year round, full-time workers.

* The common characteristic of the 47 good-paying occupations that do not require a four-year degree is the need for training beyond high school. These occupations require advanced skills learned on-the-job, in apprenticeship programs, and/or at community colleges or technical schools.

* A new feature in this year's report is research on the fastest growing good-paying occupations. Thirty occupations met our criteria as fast growing by having employment growth of at least 15,000 workers and 20% from 1992 to 1997. Of the 30, 12 require a four-year degree, 18 do not.

Tables I and II detail the good-paying occupations—highlighting those that are the fastest growing—in the Great Lakes States.

Table I

Good-Paying Occupations Not Requiring A Four-Year Degree

	Occupation	Median Earnings For Full Time Workers
	Millwrights	$60,000
	Household appliance & other electrical equipment repairers	$52,000
	Tool & die makers	$50,000
	Stationary engineers	$48,000
	Advertising & other business sales occupations	$45,000
⇒	Rail & water transportation occupations	$45,000
⇒	Firefighting & fire prevention occupations	$45,000
	Supervisors, mechanics & repairers	$44,500
⇒	Boilermakers, paternmakers & other precision metal working	$44,000
⇒	Science technicians	$43,000
	Grinding & polishing machine operators	$42,000
	Crain & tower operators	$41,600
	Other material moving equipment operators	$41,000
⇒	Industrial, mechanical & other engineering technicians	$40,600
⇒	Supervisors, construction occupations	$40,600
⇒	Electricians & electrical power installers	$40,000
⇒	Plumbers, pipefitters, & steamfitters	$40,000
	Operating engineers	$39,450
⇒	Postal clerks, mail carriers, postal service	$38,750
	Supervisors, precision production	$38,000
	Power, water & other plant & system operators	$36,750
	Telephone & line installers & repairers	$36,600
	Dietitians & physicians' assistants	$36,000
	Precision inspectors, testers & related workers	$36,000
	Heating & air conditioning mechanics	$36,000
	Electrical & electronic technicians	$35,500
⇒	Managers, medicine & health	$35,000
⇒	Production coordinators	$35,000
	Dispatcher	$34,000
⇒	Sales workers, motor vehicles & boats	$34,000
	Electronic, data processing & industrial equipment repairers	$33,500
⇒	Manager, properties & real estate	$32,500
⇒	Purchasing agents & buyers	$32,400
⇒	Brickmasons & tile setters	$31,500
	Industrial machinery repairers	$31,500

Table I
(continued)

Good-Paying Occupations Not Requiring A Four-Year Degree

	Drafting, surveying & mapping technicians	$31,100
	Other management support	$31,000
⇒	Truck drivers	$31,000
	Welders & cutters, solderers & brazers	$30,100
⇒	Clinical laboratory & radiologic technicians	$30,000
	Sales workers, radio, TV, hi-fi, and appliances	$30,000
	Supervisors, administrative support	$30,000
⇒	Machinists	$30,000
	Other mechanics & repairers	$30,000
	Mail clerks except postal service & messengers	$30,000
	Bus, truck, & stationary engine mechanics	$30,000
	Sheet metal workers	$30,000

⇒ Fast Growing Occupations

Table II

Good-Paying Occupations Requiring A Four-Year Degree

	Occupation	Median Earnings For Full Time Workers
⇒	Physicians	$120,000
	Dentists	$100,000
	Veterinarians, optometrists & other health diagnosing occupations	$80,000
	Lawyers & judges	$75,000
	Pharmacists	$60,000
	Surveyors & aerospace, chemical, nuclear, & other engineers	$60,000
⇒	Managers, marketing public relations	$60,000
⇒	Computer systems analysts & scientist	$52,500
	Natural scientist, except chemists	$51,000
⇒	Industrial & mechanical engineers	$50,500
	Teachers, post-secondary	$50,000
	Management analysis	$50,000
⇒	Administrators, education	$50,000
	Electrical & electronic engineers	$50,000
	Supervisors, protective services	$50,000
	Mathematical scientists, statisticians, & actuaries	$49,500
⇒	Labor relations, purchasing & other managers & administrative	$49,000
	Editors, reporters & public relations specialists	$48,000
	Librarians, psychologists, economists, & social scientists	$45,000
	Airplane pilots & navigators, broadcast & other technicians	$44,750
	Chemists, except biochemists	$44,400
	Teachers, special education	$42,500
	Architects	$42,500
⇒	Financial managers	$40,500
⇒	Securities & financial services sales	$40,000
	Registered nurses	$40,000
	Public administrators	$40,000
	Civil engineers	$39,000
⇒	Computer programmers	$39,000
	Underwriters & other financial officers	$37,750
	Insurance sales occupations	$37,500
	Police, detectives, sheriffs, bailiffs, & other law enforcement	$36,000
	Teachers, elementary school	$35,000
	Sales representatives-mining, manufacturing, & wholesale	$35,000
	Therapists	$34,000

Table II
(continued)

Good-Paying Occupations Requiring A Four-Year Degree

⇒	Accountants	$33,000
⇒	Designers	$32,600
	Teachers, secondary school	$32,000
	Inspectors & compliance officers	$31,000
⇒	Clergy & other religious workers	$30,000
	Personnel, training specialists	$30,000

⇒ Fast Growing Occupations

III EDUCATION ATTAINMENT AND EARNINGS

A new feature of this year's report is research on the relationship between employment earnings and education attainment. It provides another way of answering our two research questions.

Clearly those with the highest education attainment on average earn the most. But the education attainment statistics do confirm that one does not need a four-year degree to have employment earnings of $30,000 a year or more. (Table III details the relationship between education attainment and employment earnings.)

* Sixty percent of full-time Great Lakes States workers who earn $30,000 or more do not have a four-year degree. Of 7.4 million full-time workers with employment earning of $30,000 or more in 1996, 4.4 million do not have a four-year degree.

* The median earnings for full-time workers age 25-64 is above $30,000 for those with some college, academic associates degree and an occupational associates degree as well as for those with a four-year degree or more. For younger full-time workers (age 25-34) without a four-year degree, median employment earnings are $30,000 only for those with an occupational associates degree.

* The median earnings for full-time workers go up substantially—particularly for younger workers (age 25-34)—with an occupational associates degree compared to some college and even an academic associates degree. In fact, younger workers with an occupational associates degree earn only slightly less than those with a bachelors degree. Yet only slightly more than 4% have an occupational associates degree.

* The more education one has the more likely one is to be a full-time worker. This is particularly true for younger workers and for those without an high school degree or with only a high school degree. (These findings are detailed in Tables IV and V.)

Table III

Full-Time, Year Round Workers Median Employment Earnings By Education Attainment

Education	Median Earnings 25-64 Years Old	Median Earnings 25-34 Years Old
Not a high school degree	$20,900	$16,500
High school graduate	$26,000	$24,000
Some college (no degree)	$30,000	$25,000
Associates degree, academic	$31,000	$25,000
Associates degree, occupational	$35,000	$32,000
Bachelors degree	$39,900	$34,000
Masters degree or more	$53,000	$40,000

Table IV

Education Attainment
25-64 Year Olds

Education	% of Total	Proportion Who Are Full Time Workers
Not A High School Degree	10.2%	37.0%
High School Graduate	39.8%	58.7%
1 or More Years, College	17.9%	64.1%
Associates Degree, Academic	3.5%	66.6%
Associates Degree, Occupational	4.4%	69.6%
Bachelors Degree	16.5%	70.6%
Masters Degree or More	7.8%	71.7%

Table V

Education Attainment
25-34 Year Olds

Education	% of Total	Proportion Who Are Full Time Workers
Not A High School Degree	8.3%	39.9%
High School Graduate	35.6%	57.0%
1 or More Years, College	19.1%	61.9%
Associates Degree, Academic	4.6%	68.9%
Associates Degree, Occupational	4.2%	77.8%
Bachelors Degree	21.7%	75.5%
Masters Degree or More	6.6%	70.7%

Appendix A

Occupational Opportunities for Younger Workers (from 1997 report).

* The same pattern of good-paying work holds for younger full-time workers as for all year round, full-time workers.

There are good-paying opportunities for younger workers in both professional and non-bachelors degree occupations. There are a substantial proportion of younger workers earning more than $30,000 in four areas that do not require a four-year degree:

- Technicians
- Precision production, craft and repair
- Sales
- Transportation and materials moving

TABLE VI

EARNINGS BY OCCUPATION FOR 20-34 YEAR OLDS
GREAT LAKE STATES
1995

OCCUPATION*	*# OF FULL TIME YEAR ROUND WORKERS (Thousands)	% EARNING $30,000 OR MORE
*EXECUTIVE, ADMINISTRATIVE AND MANAGERS	670	48.4
*PROFESSIONAL	698	59.7
*TECHNICIANS AND RELATED SUPPORT	171	43.1
*SALES	529	39.8
*ADMINISTRATIVE SUPPORT	693	17.3
*SERVICES, EXCEPT HOUSEHOLD AND PROTECTIVE	409	3.3
*PRECISION PRODUCTION, CRAFT AND REPAIR	641	44.4
*MACHINE-OPERATORS, ASSEMBLERS AND INSPECTORS	496	21.0
*TRANSPORTATION AND MATERIAL MOVING	225	34.7
*HANDLERS, HELPERS AND LABORERS	270	13.9

*at least 150,000 workers

TABLE VII

OCCUPATIONAL STRUCTURE BY AGE
GREAT LAKES STATES, 1995

AGE:	20-34	35-49	50-64
EXECUTIVE, ADMINISTRATIVE & MANAGERIAL	13.4%	17.5%	17.0%
PROFESSIONAL SPECIALTY	14.0%	14.6%	14.6%
TECHNICIANS AND RELATED SUPPORT	3.4%	3.8%	2.6%
SALES	10.6%	10.5%	11.0%
ADMINISTRATIVE SUPPORT	13.9%	13.5%	14.7%
SERVICES EXCEPT HOUSEHOLD & PROTECTIVE	8.2%	6.6%	7.3%
PRECISION PRODUCTION, CRAFT & REPAIR	12.9%	12.7%	11.8%
MACHINE OPERATORS, ASSEMBLERS & INSPECTORS	10.0%	9.6%	10.1%
TRANSPORTATION & MATERIAL MOVING	4.5%	5.0%	4.9%
HANDLERS, HELPERS & LABORERS	5.4%	2.5%	3.8%
OTHER OCCUPATIONS	3.6%	3.9%	3.3%

Appendix B

Employment, Unemployment, Earnings and Age by Occupations for Great Lakes States in 1997.

Employment, Unemployment, Earnings, and Age by Occupation for the Great Lakes States, 1997

	March, 1997					1996			Employment		
	Labor Force	Unemployment Rate	Employment	Percent Bachelors+	Average Age	Full-time Year-round	Part-time or Part-year	Annual Earnings Median	March, 1992	%ch92-97	ch92-97
Executive, admistrative & managerial	2,964,200	1.9%	2,907,880	45.1%	41.9	2,439,900	523,500	$40,000	2,305,445	26.1%	602,435
Public administrators	74,648	2.6%	72,707	44.6%	45.6	68,059	13,856	$40,000	78,324	-7.2%	-5,617
Financial managers	146,900	1.2%	145,137	61.0%	41.3	137,900	11,800	$40,500	72,570	100.0%	72,568
Managers, marketing, public relations	129,100	1.3%	127,422	57.3%	40.1	122,200	9,200	$60,000	93,735	35.9%	33,686
Administrators, education	107,900	0.0%	107,900	76.4%	47	87,215	23,385	$50,000	87,520	23.3%	20,380
Managers, medicine & health	106,500	0.0%	106,500	34.2%	43.1	82,028	24,772	$35,000	87,344	21.9%	19,156
Managers, food service & lodging	214,600	3.8%	206,445	13.3%	40.7	168,700	60,100	$26,900	197,957	4.3%	8,488
Managers, properties & real estate	90,816	5.0%	86,275	26.7%	47.4	79,442	23,258	$32,500	54,302	58.9%	31,973
Labor relations, purchasing & other mangers & administrative	1,311,200	2.5%	1,278,420	41.4%	42.6	1,125,100	213,300	$49,000	1,011,917	26.3%	266,503
Accountants	234,900	0.8%	233,021	72.2%	39	196,900	41,600	$33,000	172,211	35.3%	60,810
Underwriters & other financial officers	138,262	2.6%	134,667	51.4%	41.3	118,433	14,733	$37,750	129,627	3.9%	5,041
Management analysts	42,566	0.0%	42,566	85.0%	43.2	24,507	19,161	$50,000	35,177	21.0%	7,389
Personnel, training specialists	75,088	0.0%	75,088	54.0%	36.6	67,064	14,179	$30,000	67,685	10.9%	7,403
Purchasing agents & buyers	102,669	0.0%	102,669	34.8%	37.9	81,953	24,628	$32,400	81,236	26.4%	21,433
Inspectors & compliance officers	20,154	0.0%	20,154	43.9%	48	11,275	10,470	$31,000	50,934	-60.4%	-30,780
Other management support	82,090	0.0%	82,090	32.8%	40.6	69,061	19,137	$31,000	79,263	3.6%	2,827
Professional specialty	3,188,200	1.4%	3,143,565	71.4%	39.8	2,127,200	1,035,200	$42,000	2,745,716	14.5%	397,850
Architects	22,236	0.0%	22,236	83.1%	45.6	17,675	3,858	$42,500	18,283	21.6%	3,953
Civil engineers	26,642	0.0%	26,642	80.8%	34.7	23,889	0	$39,000	29,820	-10.7%	-3,178
Electrical & electronic engineers	92,560	2.8%	89,968	64.5%	38.9	84,885	7,320	$50,000	88,896	1.2%	1,073
Industrial & mechanical engineers	178,617	1.2%	176,474	69.3%	36.9	127,767	39,192	$50,500	131,059	34.7%	45,414
Surveyors & other engineers	72,290	0.0%	72,290	79.9%	39.6	61,692	14,109	$60,000	79,625	-9.2%	-7,335
Computer systems analysts & scientists	194,000	0.0%	194,000	76.7%	37.1	173,600	23,400	$52,500	137,744	40.8%	56,256
Mathematical scientists, statisticians, & actuaries	46,258	0.0%	46,258	68.0%	33.4	32,513	10,314	$49,500	48,426	-4.5%	-2,168
Chemists, except biochemists	24,270	0.0%	24,270	71.2%	34.3	23,660	0	$44,400	25,175	-3.6%	-905
Natural scientists, except chemists	34,807	0.0%	34,807	92.5%	36.2	28,381	3,042	$51,000	28,985	20.1%	5,822
Physicians	128,500	0.0%	128,500	100.0%	45.5	121,200	9,100	$120,000	98,184	30.9%	30,316
Dentists	20,063	0.0%	20,063	100.0%	38.1	18,085	1,721	$100,000	21,640	-7.3%	-1,577
Other health diagnosing occupations	24,278	0.0%	24,278	100.0%	40.1	24,074	5,745	$80,000	24,090	0.8%	188
Registered nurses	310,200	1.4%	305,857	48.7%	42.1	214,400	111,100	$40,000	281,766	8.6%	24,091
Pharmacists	40,951	0.0%	40,951	88.3%	40	26,066	14,023	$60,000	32,924	24.4%	8,027
Dietitians & physicians' assistants	36,047	0.0%	36,047	28.4%	31.8	11,995	21,331	$36,000	29,629	21.7%	6,418
Therapists	58,709	0.0%	58,709	63.2%	37.4	32,603	34,837	$34,000	53,355	10.0%	5,354
Teachers, post-secondary	166,126	1.1%	164,299	88.7%	42.2	87,663	81,221	$50,000	143,576	14.4%	20,723
Teachers, prekindergarten & kindergarten	62,206	0.0%	62,206	58.1%	35.4	28,247	43,001	$18,298	58,576	6.2%	3,630
Teachers, elementary school	290,100	0.0%	290,100	91.8%	43.4	166,100	154,600	$35,000	313,200	-7.4%	-23,100
Teachers, secondary school	196,100	0.0%	196,100	93.6%	43.2	125,700	85,800	$32,000	224,900	-12.8%	-28,800
Teachers, special education	57,145	0.0%	57,145	96.5%	45.4	34,948	22,090	$42,500	44,918	27.2%	12,227
Other teachers	141,000	4.2%	135,078	51.3%	36.4	75,092	72,508	$24,000	98,308	37.4%	36,770
Counselors, educational & vocational	47,902	0.0%	47,902	77.1%	36.1	28,371	21,772	$29,851	54,762	-12.5%	-6,860
Librarians, psychologists, economists, & social scientists	86,073	0.0%	86,073	65.7%	41.9	53,834	38,422	$45,000	104,878	-17.9%	-18,805
Social workers	154,000	0.0%	154,000	68.5%	39.2	107,200	38,000	$26,500	95,694	60.9%	58,306
Clergy & other religious workers	76,376	2.8%	74,237	58.5%	44.2	72,217	10,949	$30,000	57,876	28.3%	16,361
Lawyers & judges	117,800	3.0%	114,266	98.1%	42.5	98,725	19,575	$75,000	104,500	9.3%	9,766
Designers	134,700	4.1%	129,177	45.5%	38.3	94,252	51,748	$32,600	101,746	27.0%	27,432
Editors, reporters & public relations specialists	58,504	0.0%	58,504	70.0%	37.4	37,860	23,965	$48,000	69,229	-15.5%	-10,725

Source: March, 1997 and March, 1992 CPS compiled by Donald Grimes for Michigan Future.

	March, 1997					1996			Employment		
	Labor Force	Unemployment Rate	Employment	Percent Bachelors+	Average Age	Full-time Year-round	Part-time or Part-year	Annual Earnings Median	March, 1992	%ch92-97	ch92-97
Recreation workers, technical writers, artists, & entertainers	196,994	4.5%	188,129	47.4%	36.2	94,546	76,206	$24,103	138,699	35.6%	49,430
Technicians & related support	826,943	4.4%	790,558	24.3%	38.6	619,090	251,362	$31,000	666,281	18.7%	124,276
Clinical laboratory & radiologic technicians	106,545	4.0%	102,283	25.5%	37.7	73,316	40,370	$30,000	85,174	20.1%	17,109
Licensed practical nurses	114,000	4.6%	108,756	0.0%	43	80,152	34,548	$25,000	64,447	68.8%	44,309
Dental hygienists, health record & other health technicians	191,003	2.6%	186,037	13.7%	36.5	128,991	67,474	$23,000	88,534	110.1%	97,503
Electrical & electronic technicians	47,646	5.3%	45,121	24.6%	42.6	42,212	2,633	$35,500	53,234	-15.2%	-8,113
Industrial, mechanical & other engineering technicians	78,644	11.7%	69,443	10.8%	40.7	61,956	11,514	$40,617	46,258	50.1%	23,185
Drafting, surveying & mapping technicians	66,824	3.2%	64,686	21.5%	40.2	42,995	24,665	$31,080	69,238	-6.6%	-4,552
Science technicians	53,187	4.0%	51,060	26.3%	39.3	31,159	13,258	$43,000	25,999	96.4%	25,061
Computer programers	105,700	2.2%	103,375	62.4%	35.5	89,302	23,098	$39,000	80,152	29.0%	23,222
Legal Assistants	47,822	0.0%	47,822	38.8%	34.2	37,077	13,683	$29,500	13,194	262.5%	34,628
Other technicians	51,767	7.3%	47,988	48.6%	44.2	29,157	20,147	$44,750	140,346	-65.8%	-92,358
Sales occupations	2,731,400	4.4%	2,611,218	24.0%	37.4	1,625,500	1,229,000	$29,000	2,339,036	11.6%	272,182
Supervisors & proprietors, sales occupations	754,900	1.8%	741,312	28.2%	42.6	645,600	131,700	$29,000	668,538	10.9%	72,774
Insurance sales occupations	94,955	0.0%	94,955	53.6%	39.9	89,749	9,803	$37,500	99,974	-5.0%	-5,019
Real estate sales occupations	114,600	0.0%	114,600	36.2%	46.6	82,618	37,382	$29,000	82,617	38.7%	31,983
Securities & financial services sales	86,444	0.0%	86,444	59.6%	37.2	68,737	21,897	$40,000	51,198	68.8%	35,246
Advertising & other business sales occupations	106,948	3.8%	102,884	39.8%	34.9	62,658	40,808	$45,000	103,274	-0.4%	-390
Sales representatives mining, manufacturing, & wholesale	278,205	1.7%	273,476	50.3%	40	240,478	44,462	$35,000	248,932	9.9%	24,543
Sales workers, motor vehicles & boats	60,794	3.6%	58,605	22.4%	40.9	44,236	14,890	$33,970	42,710	37.2%	15,896
Sales workers, apparel	78,677	12.0%	69,236	25.7%	32.7	23,924	69,456	$23,000	75,460	-8.2%	-6,225
Sales workers, furniture & home furnishings	20,195	11.1%	17,953	11.1%	45.9	17,613	8,591	$28,000	24,010	-25.2%	-6,057
Sales workers, radio, TV, hi-fi, and appliances	30,867	0.0%	30,867	24.3%	31.9	12,786	20,099	$30,000	25,880	19.3%	4,987
Sales workers, hardware & building supplies	42,750	5.2%	40,527	11.4%	39.4	24,887	34,118	$21,000	40,507	0.0%	20
Sales counter clerks	33,963	0.0%	33,963	31.7%	34.4	17,727	21,423	$22,250	48,872	-30.5%	-14,909
Cashiers	496,700	8.7%	453,487	3.7%	29.8	141,700	431,400	$13,000	453,584	0.0%	-97
Door to door sales	65,984	13.1%	57,340	10.1%	39.8	23,227	48,999	$24,000	48,015	19.4%	9,325
Other sales occupations	359,082	7.1%	333,587	12.8%	34.5	129,452	294,099	$15,000	325,930	2.3%	7,657
Administrative support occupations	3,211,200	2.6%	3,127,709	12.2%	39.1	2,090,100	1,298,800	$23,000	3,251,545	-3.8%	-123,836
Supervisors, administrative support	113,590	0.0%	113,590	10.3%	42.2	112,012	13,823	$30,000	132,167	-14.1%	-18,577
Computer equipment operators	44,955	0.0%	44,955	5.8%	41.9	36,483	11,982	$25,000	132,992	-66.2%	-88,037
Secretaries, stenographers, & typists	731,470	2.3%	714,646	9.5%	40.9	409,740	331,889	$21,000	804,120	-11.1%	-89,474
Receptionists	166,100	0.0%	166,100	8.4%	39.1	99,569	90,931	$20,000	177,078	-6.2%	-10,978
Interviewers, transportation & other information clerks	137,701	6.6%	128,613	7.6%	34.7	58,791	80,521	$24,000	89,880	43.1%	38,733
Records processing, except financial	181,428	3.2%	175,622	17.5%	35.2	96,688	81,397	$23,200	160,751	9.3%	14,871
Bookkepers, accounting, auditing clerks	275,800	2.4%	269,181	12.1%	42.7	182,000	131,700	$21,060	321,308	-16.2%	-52,127
Payroll, timekeeping & billing clerks	42,275	4.2%	40,499	0.0%	38.8	26,804	15,134	$20,000	56,898	-28.8%	-16,399
Billing, duplicating, mail, & other office machine operators	34,871	5.8%	32,848	12.7%	33.8	24,823	4,002	$18,200	34,191	-3.9%	-1,343
Telephone & other communication equipment operators	33,173	0.0%	33,173	10.5%	40.6	26,740	10,056	$25,500	37,925	-12.5%	-4,752
Postal clerks, mail carriers, postal service	90,300	6.0%	84,882	2.9%	40.8	76,804	12,860	$38,750	59,545	42.6%	25,337
Mail clerks except postal service & messengers	47,680	4.8%	45,391	0.0%	44	23,786	33,137	$30,000	53,298	-14.8%	-7,906
Dispatchers	37,196	0.0%	37,196	12.8%	41.7	36,364	0	$34,000	33,636	10.6%	3,560
Production coordinators	66,063	0.0%	66,063	11.8%	39.9	62,962	8,348	$35,000	21,725	204.1%	44,338
Traffic, shipping, & receiving clerks	118,300	2.6%	115,224	6.3%	36.6	99,147	22,753	$20,000	87,463	31.7%	27,761
Stock & inventory clerks	79,254	2.8%	77,035	8.9%	38.5	59,470	25,900	$25,613	101,816	-24.3%	-24,781
Other material recording & scheduling clerks	89,494	6.7%	83,498	11.8%	34.8	57,365	24,184	$25,943	39,369	112.1%	44,129

Source: March, 1997 and March, 1992 CPS compiled by Donald Grimes for Michigan Future.

	March, 1997					1996					
	Labor Force	Unemployment Rate	Employment	Percent Bachelors+	Average Age	Full-time Year-round	Part-time or Part-year	Annual Earnings Median	Employment March, 1992	%ch92-97	ch92-97
Insurance adjusters, examiners, & investigators	81,309	0.0%	81,309	35.7%	37	75,900	9,718	$26,850	64,091	26.9%	17,218
Investigators & adjusters, except insurance	182,500	1.1%	180,493	21.3%	38.7	134,500	52,100	$23,000	128,411	40.6%	52,081
Bill & account collectors	25,449	0.0%	25,449	36.2%	40.1	22,182	2,181	$21,500	14,855	71.3%	10,594
General office clerks	113,300	1.9%	111,147	13.7%	37.1	83,181	59,719	$21,500	145,074	-23.4%	-33,927
Bank tellers	86,003	0.0%	86,003	10.7%	37.7	45,453	52,164	$17,000	99,189	-13.3%	-13,186
Data-entry keyers	123,900	2.6%	120,679	18.1%	36.2	60,189	71,011	$21,500	90,610	33.2%	30,069
Teachers' aides	90,519	0.0%	90,519	20.8%	44.6	31,689	71,111	$17,550	98,202	-7.8%	-7,683
Other administrative support occupations	186,959	3.7%	180,042	17.6%	39.4	147,499	82,263	$23,767	267,200	-32.6%	-87,158
Private household service occupations	71,892	9.4%	65,134	0.0%	30.4	12,579	101,164	$10,000	138,391	-52.9%	-73,256
Protective service occupations	310,464	1.1%	307,049	23.8%	40.5	256,399	117,784	$35,000	343,946	-10.7%	-36,897
Supervisors, protective services	28,804	0.0%	28,804	48.0%	47.6	28,202	2,021	$50,000	28,047	2.7%	757
Firefighting & fire prevention occupation	47,394	0.0%	47,394	11.8%	36.3	35,318	6,881	$45,000	20,744	128.5%	26,650
Police, detectives, sheriffs, bailiffs, & other law enforcement	91,766	0.0%	91,766	47.8%	41.3	91,680	2,403	$36,001	105,879	-13.3%	-14,113
Correctional institution officers	42,922	0.0%	42,922	12.5%	39.1	38,702	3,540	$29,000	48,146	-10.9%	-5,224
Guards & other protective service occupations	103,098	3.3%	99,696	5.3%	40.4	62,497	102,940	$20,000	140,903	-29.2%	-41,207
Service occupations, except protective & household	2,487,200	6.0%	2,337,968	5.4%	35	1,065,700	1,811,100	$15,550	2,222,499	5.2%	115,469
Supervisors, service occupations, except protective services	93,887	3.3%	90,789	2.3%	34.4	56,521	64,788	$22,000	87,032	4.3%	3,757
Bartenders	80,931	0.0%	80,931	0.0%	38.7	34,545	59,032	$13,000	50,257	61.0%	30,674
Waiters & waitresses	187,500	3.6%	180,750	10.5%	27.5	42,310	190,890	$11,550	230,010	-21.4%	-49,260
Cooks	366,900	6.0%	344,886	3.0%	32.9	169,900	281,300	$13,000	301,804	14.3%	43,082
Food counter & related occupations	76,339	0.0%	76,339	0.0%	23.9	10,829	86,083	$7,000	63,401	20.4%	12,939
Waiters' & waitresses' assistants	108,400	5.9%	102,004	9.5%	25.8	20,939	105,661	$18,000	47,717	113.8%	54,287
Kitchen workers & other food preparation occupations	173,134	12.9%	150,800	5.7%	31.8	43,317	146,145	$13,064	154,628	-2.5%	-3,829
Dental assistants & health aides, except nursing	102,980	0.0%	102,980	1.9%	38.2	60,000	34,056	$18,000	101,979	1.0%	1,001
Nursing aides, orderlies & attendants	287,200	3.4%	277,435	6.6%	38.3	157,600	148,400	$16,000	247,974	11.9%	29,461
Maids & housemen	78,569	0.0%	78,569	7.2%	41.3	34,841	78,959	$15,000	92,030	-14.6%	-13,461
Janitors & cleaners	447,100	4.9%	425,192	3.4%	39.5	235,800	259,200	$19,029	438,607	-3.1%	-13,415
Barbers, hairdressers & cosmetologists	130,585	0.0%	130,585	7.2%	37.7	67,031	64,473	$15,900	147,048	-11.2%	-16,463
Family & child care providers	215,135	4.0%	206,530	8.4%	34.3	78,369	160,432	$9,000	165,754	24.6%	40,775
Other service occupations	101,320	8.0%	93,214	11.5%	30	33,691	89,948	$24,000	125,033	-25.4%	-31,819
Farming, forestry, & fishing occupations	365,583	7.1%	339,627	6.9%	40.5	199,687	271,044	$19,500	322,427	5.3%	17,200
Farm operators & managers	191,396	1.4%	188,716	7.3%	47.2	112,390	90,276	$23,534	167,451	12.7%	21,265
Farm occupations, except managerial	42,460	14.1%	36,473	6.7%	26.1	19,163	42,762	$12,000	75,400	-51.6%	-38,927
Groundskeepers & gardners, except farm	110,300	28.2%	79,195	7.4%	31.9	34,637	121,763	$20,500	50,426	57.1%	28,769
Other related agricultural, forestry & fishing occupations	50,410	0.0%	50,410	5.5%	33.9	33,470	16,300	$15,144	28,959	74.1%	21,451
Precision production, craft, & repair occupations	2,590,900	5.7%	2,443,219	4.6%	39.4	2,097,700	711,800	$32,750	2,263,502	7.9%	179,717
Mechanics & repairers	751,836	2.4%	733,792	4.3%	38.9	686,910	117,469	$30,000	809,491	-9.4%	-75,699
Supervisors, mechanics & repairers	35,022	0.0%	35,022	0.0%	40.6	24,330	5,303	$44,500	39,931	-12.3%	-4,909
Automobile mechanics	149,700	3.3%	144,760	1.7%	36.6	121,700	36,100	$23,000	140,018	3.4%	4,742
Bus, truck, & stationary engine mechanics	52,500	6.4%	49,140	0.0%	33.2	49,209	7,262	$30,000	74,422	-34.0%	-25,282
Automobile body repairers	30,352	0.0%	30,352	0.0%	33.8	25,867	5,637	$25,500	38,144	-20.4%	-7,792
Heavy equipment mechanics	31,501	12.9%	27,437	0.0%	40.7	30,302	2,009	$25,000	34,612	-20.7%	-7,174
Industrial machinery repairers	103,100	0.0%	103,100	6.2%	43	103,000	0	$31,500	132,951	-22.5%	-29,851
Other mobile equipment repairers	32,017	0.0%	32,017	25.2%	34.6	25,639	4,345	$29,900	39,287	-18.5%	-7,270
Electronic, data processing & industrial equipment repairers	46,437	4.5%	44,347	11.4%	33.1	46,086	16,330	$33,500	51,992	-14.7%	-7,645
Telephone & line installers & repairers	27,268	0.0%	27,268	0.0%	42.5	23,977	6,363	$36,612	15,811	72.5%	11,457

Source: March, 1997 and March, 1992 CPS compiled by Donald Grimes for Michigan Future.

Employment, Unemployment, Earnings, and Age by Occupation for the Great Lakes States, 1997

	March, 1997					1996			Employment		
	Labor Force	Unemployment Rate	Employment	Percent Bachelors+	Average Age	Full-time Year-round	Part-time or Part-year	Annual Earnings Median	March, 1992	%ch92-97	ch92-97
Household appliance & other electrical equip. repairers	27,655	0.0%	27,655	32.0%	40.6	23,823	5,055	$52,000	31,560	-12.4%	-3,905
Heating, & air conditioning mechanics	50,324	4.2%	48,210	0.0%	41.1	41,080	7,770	$36,000	40,398	19.3%	7,812
Millwrights	28,631	0.0%	28,631	0.0%	44.5	29,870	0	$60,000	35,858	-20.2%	-7,227
Other mechanics & repairers	121,654	3.0%	118,004	2.9%	40.9	142,128	21,269	$30,000	130,936	-9.9%	-12,931
Construction & mining occupations	935,842	10.6%	836,643	3.5%	37.9	660,222	411,978	$33,000	650,484	28.6%	186,159
Supervisors, construction occupations	89,423	7.3%	82,895	7.2%	41.7	71,683	34,076	$40,600	64,216	29.1%	18,679
Brickmasons & tile setters	50,001	7.6%	46,201	7.1%	39.1	34,771	21,859	$31,500	23,073	100.2%	23,128
Carpet installers	22,308	0.0%	22,308	0.0%	3206	13,112	10,436	$28,000	21,073	5.9%	1,235
Carpenters	255,500	8.5%	233,783	2.8%	37.8	170,000	119,700	$26,250	183,596	27.3%	50,187
Electricians & electrical power installers	162,757	8.9%	148,272	5.5%	38.2	129,046	40,683	$40,000	103,318	43.5%	44,953
Painters, paperhangers, & plasterers	86,205	27.4%	62,585	2.4%	35.1	51,589	62,184	$23,000	91,697	-31.7%	-29,112
Plumbers, pipefitters, & steamfitters	120,600	3.5%	116,379	4.6%	39.4	87,851	45,649	$40,000	86,271	34.9%	30,108
Other construction & mining occupations, including apprentices	154,325	14.4%	132,102	1.5%	37.6	105,756	77,390	$28,000	82,324	60.5%	49,778
Precision Production Occupations	900,007	3.4%	869,407	6.1%	41.2	747,008	182,371	$33,075	798,570	8.9%	70,837
Supervisors, precision production	279,800	5.4%	264,691	7.7%	41.7	245,600	40,200	$38,000	261,751	1.1%	2,940
Tool & die makers	56,295	0.0%	56,295	0.0%	40.9	50,843	3,461	$50,000	46,143	22.0%	10,152
Machinists	160,500	0.0%	160,500	3.6%	38.1	140,000	31,100	$30,000	124,022	29.4%	36,479
Sheet metal workers	32,494	0.0%	32,494	0.0%	41.6	26,154	5,658	$30,000	23,978	35.5%	8,516
Boilermakers, patternmakers, apprentices & other precision metal working	39,444	6.0%	37,077	5.2%	45.1	27,854	16,793	$44,000	17,945	106.6%	19,132
Precision woodworking, textile & apparel machine workers	67,923	2.7%	66,089	5.6%	41.6	38,755	24,852	$20,000	32,149	105.6%	33,940
Electrical & electronic assemblers	30,196	0.0%	30,196	0.0%	40.7	29,957	7,823	$22,750	91,258	-66.9%	-61,062
Other precision workers, assorted materials	38,028	5.2%	36,051	5.6%	37.6	30,931	10,977	$28,000	44,069	-18.2%	-8,018
Butchers & meat cutters	56,398	4.3%	53,973	0.0%	40.7	40,698	18,058	$24,000	41,010	31.6%	12,963
Bakers & food batchmakers	35,213	11.3%	31,234	6.8%	42.2	22,630	11,661	$20,500	40,435	-22.8%	-9,201
Precision inspectors, testers & related workers	38,959	0.0%	38,959	13.9%	41.9	21,008	7,364	$36,000	27,166	43.4%	11,793
Stationary engineers	36,479	0.0%	36,479	21.4%	40.3	31,984	6,460	$48,000	27,732	31.5%	8,747
Power, water & other plant & system operators	28,159	0.0%	28,159	14.9%	42.5	30,589	0	$36,750	20,064	40.3%	8,095
Machine operators, assemblers, & inspectors	1,915,800	7.1%	1,779,778	3.0%	37.7	1,369,600	530,700	$25,000	1,700,453	4.7%	79,325
Punching & stamping press operators	46,381	4.8%	44,155	0.0%	39.5	33,865	10,401	$21,000	52,719	-16.2%	-8,565
Grinding & polishing machine operators	38,793	10.9%	34,565	7.8%	46.2	35,284	14,100	$42,000	46,072	-25.0%	-11,507
Other metal & plastic working machine operators	82,346	8.5%	75,347	7.6%	37.5	49,556	12,080	$27,500	82,453	-8.6%	-7,107
Metal & plastic processing machine operators	65,140	0.0%	65,140	4.3%	35.4	48,546	12,226	$25,000	64,487	1.0%	653
Woodworking machine operators	19,817	0.0%	19,817	0.0%	38	17,519	5,325	$19,000	19,406	2.1%	411
Printing machine operators	94,058	3.5%	90,766	2.9%	41.1	74,975	19,468	$28,000	64,566	40.6%	26,200
Textile sewing machine operators	34,404	14.5%	29,415	0.0%	40.5	24,142	11,339	$13,410	39,263	-25.1%	-9,847
Pressing, laundering, dry cleaning & other textile machine operators	36,531	10.9%	32,549	0.0%	37.2	28,179	15,077	$19,760	68,925	-52.8%	-36,376
Packaging & filling machine operators	77,989	19.5%	62,781	3.2%	39.6	46,607	30,500	$25,000	62,604	0.3%	177
Painting & paint spraying machine operators	45,794	0.0%	45,794	5.7%	34.2	41,329	9,022	$22,000	40,205	13.9%	5,589
Slicing & cutting machine operators	43,972	0.0%	43,972	0.0%	38.3	32,370	11,574	$21,900	63,897	-31.2%	-19,925
Other machine operators, assorted materials	528,352	6.5%	494,009	3.0%	36.3	373,686	138,325	$26,000	418,902	17.9%	75,108
Welders & cutters, solderers & brazers	155,044	13.5%	134,113	0.0%	35.8	102,707	45,586	$30,100	164,897	-18.7%	-30,784
Assemblers	431,900	5.5%	408,146	3.5%	38.8	314,800	135,100	$25,000	300,463	35.8%	107,682
Other hand working occupations	18,446	0.0%	18,446	0.0%	41.3	14,918	15,393	$22,500	25,987	-29.0%	-7,541
Production inspectors, testers & weighers	154,465	1.4%	152,302	3.8%	37.6	131,117	45,136	$27,550	185,565	-17.9%	-33,262
Transportation & material moving equipment	1,028,100	6.2%	964,358	4.8%	40.2	746,030	312,070	$31,000	801,789	20.3%	162,568
Supervisors, transportation & material moving	19,878	10.2%	17,850	12.2%	37.4	14,240	4,949	$26,000	9,825	81.7%	8,025

Source: March, 1997 and March, 1992 CPS compiled by Donald Grimes for Michigan Future.

Employment, Unemployment, Earnings, and Age by Occupation for the Great Lakes States, 1997

	March, 1997					1996			Employment		
	Labor Force	Unemployment Rate	Employment	Percent Bachelors+	Average Age	Full-time Year-round	Part-time or Part-year	Annual Earnings Median	March, 1992	%ch92-97	ch92-97
Truck drivers	573,000	4.2%	548,934	2.6%	41.3	434,300	169,900	$31,000	447,372	22.7%	101,562
Driver-sales workers	42,151	0.0%	42,151	0.0%	37.5	30,874	9,399	$28,500	58,694	-28.2%	-16,543
Bus drivers	79,451	0.0%	79,451	9.3%	41.9	37,502	50,496	$20,000	56,722	40.1%	22,729
Taxicabs, & other motor vehicle operators	40,601	11.6%	35,891	11.2%	42	17,965	27,542	$15,000	37,349	-3.9%	-1,458
Rail & water transportation occupations	46,869	0.0%	46,869	13.3%	39.1	41,880	4,465	$45,000	25,726	82.2%	21,143
Operating engineers	34,406	24.9%	25,839	14.2%	43.2	20,853	18,518	$39,450	15,159	70.5%	10,680
Crain & tower operators	25,533	0.0%	25,533	0.0%	32.6	24,340	0	$41,600	19,904	28.3%	5,629
Industrial truck & tractor equipment operators	109,500	4.5%	104,573	0.0%	38.3	99,194	15,706	$29,000	98,306	6.4%	6,267
Other material moving equipment operators	38,887	11.0%	34,609	6.6%	39.8	24,852	11,167	$41,000	32,745	5.7%	1,864
Handlers, equipment cleaners, helpers, & laborers	1,018,800	17.0%	845,604	3.8%	32.3	428,677	711,423	$21,000	803,840	5.2%	41,764
Helpers & laborers, construction trades	190,516	37.2%	119,644	1.3%	35.2	60,684	124,185	$23,025	112,866	6.0%	6,778
Stock handlers & baggers	235,300	6.4%	220,241	1.7%	28.1	78,486	198,814	$16,000	140,963	56.2%	79,278
Vehicle washers & equipment cleaners	68,171	29.5%	48,061	0.0%	25.1	26,775	63,817	$20,000	39,193	22.6%	8,867
Handpackers & packagers	44,352	0.0%	44,352	6.8%	33.5	26,678	27,939	$19,200	68,946	-35.7%	-24,594
Laborers, except construction	245,400	16.9%	203,927	4.4%	35.5	134,200	161,200	$23,000	231,725	-12.0%	-27,797
Other handlers and helpers	208,084	8.3%	190,813	8.6%	31.8	101,894	135,502	$23,000	209,712	-9.0%	-18,899

Source: March, 1997 and March, 1992 CPS compiled by Donald Grimes for Michigan Future.

Appendix C

Employment and Income in 1996 by Education Attainment for all residents of the Great Lakes States.

Employment and Income in 1996 of all residents of Great Lakes states aged 25 to 64 in March, 1997

	All persons 25 to 64 in March, 1997, Employment and Earnings in 1996						
					Full-time, full-year		
Education	Total	Non-workers	Part-year or Part-time	Full-time, Full-year	Earning $30,000 or more	Percent $30,000 or more	Median Earnings
Not a high school graduate	2,276,763	889,518	545,151	842,094	233,484	27.7%	$20,900
High school graduate	8,961,000	1,535,000	2,163,000	5,263,000	2,236,700	42.5%	$26,000
1 or more years college	4,025,000	523,000	921,000	2,581,000	1,257,600	48.7%	$30,000
Associates degree, academic	797,800	93,785	173,115	530,900	284,614	53.6%	$31,000
Associates degree, occupational	986,200	76,678	222,722	686,800	427,836	62.3%	$35,000
Bachelors degree	3,707,000	341,400	748,600	2,617,000	1,863,400	71.2%	$39,892
Masters degree or more	1,759,400	99,935	397,565	1,261,900	1,111,700	88.1%	$53,000
All levels	22,513,163	3,559,316	5,171,153	13,782,694	7,415,334	53.8%	$31,500

Source: March, 1997 CPS. Compiled by Don Grimes, ILIR University of Michigan

Employment and Income in 1996 of all residents of Great Lakes states 16 or older in March, 1997

	All persons 16 or older in March, 1997, Employment and Earnings in 1996						
					Full-time, full-year		
Education	Total	Non-workers	Part-year or Part-time	Full-time, Full-year	Earning $30,000 or more	Percent $30,000 or more	Median Earnings
Not a high school graduate	6,153,654	3,440,180	1,710,577	1,002,897	257,156	25.6%	$20,000
High school graduate	12,310,000	3,375,000	3,135,000	5,800,000	2,320,600	40.0%	$25,188
1 or more years college	6,206,000	1,278,000	2,003,000	2,925,000	1,288,600	44.1%	$28,000
Associates degree, academic	942,600	137,500	235,000	570,100	286,814	50.3%	$30,000
Associates degree, occupational	1,197,000	172,500	266,300	758,200	442,718	58.4%	$33,000
Bachelors degree	4,401,000	686,600	947,400	2,767,000	1,928,600	69.7%	$38,000
Masters degree or more	1,970,600	218,514	455,886	1,296,200	1,138,215	87.8%	$52,000
All levels	33,180,854	9,308,294	8,753,163	15,119,397	7,662,703	50.7%	$30,000

Source: March, 1997 CPS. Compiled by Don Grimes, ILIR University of Michigan

Employment and Income in 1996 of all residents of Great Lakes states aged 25 to 34 in March, 1997

	All persons 25 to 34 in March, 1997, Employment and Earnings in 1996						
					Full-time, full-year		
Education	Total	Non-workers	Part-year or Part-time	Full-time, Full-year	Earning $30,000 or more	Percent $30,000 or more	Median Earnings
Not a high school graduate	430,299	137,366	121,139	171,794	28,114	16.4%	$16,500
High school graduate	1,843,000	209,100	582,900	1,051,000	368,729	35.1%	$24,000
1 or more years college	990,300	98,351	279,349	612,600	205,940	33.6%	$25,000
Associates degree, academic	236,100	25,160	48,340	162,600	61,139	37.6%	$25,000
Associates degree, occupational	217,500	6,673	41,627	169,200	93,460	55.2%	$32,000
Bachelors degree	1,125,000	72,643	203,357	849,000	536,521	63.2%	$34,000
Masters degree or more	339,668	19,838	79,671	240,159	182,795	76.1%	$40,000
All levels	5,181,867	569,131	1,356,383	3,256,353	1,476,698	45.3%	$23,000

Source: March, 1997 CPS. Compiled by Don Grimes, ILIR University of Michigan